DESIGN4 HEALTH

Extract of the

Proceedings of the 3rd European Conference on Design4Health

Sheffield 13-16th July 2015

Editor: Kirsty Christer

ISBN: 978-1-84387-385-3

Sheffield Hallam University | Art and Design Research Centre

LAB 4 LIVING

YORKSHIRE & HUMBER
ACADEMIC HEALTH SCIENCE NETWORK

DESIGN4 HEALTH
2015 European Conference

IILL PERFORMING BUILDINGS FOR MENTAL HEALTH

Evangelia Chrysikou PhD

SynThesis Architects and Bartlett School of Architecture, UK

Abstract

Psychiatric de-institutionalisation was characterised by the shift to community-based facilities. Yet, institutional remnants still prevailed, even in new structures. The building stock was no exception as it adapts slower than organizations and as architects had limited knowledge on mental health (Brand, 1994; Norman, 2002). The lack of understanding regarding community care, of evidence-based guidelines and of comprehensive briefs resulted in architectural experimentation. New facilities often became smaller-scale total institutions, creating social exclusion inside the community. Occasionally, social problems in new buildings were so severe that those had to be demolished (Elderfield, 2002). The research investigated the spatial mechanisms that created those community-based institutions, even when the best architectural intentions were involved. It also aimed to identify the limitations of generic architectural frameworks for specialised healthcare facilities such as mental health. The research investigated 10 community-based facilities. 2/10 facilities were buildings considered state of the art, by their awards and presentation in the architectural literature. These buildings were compared to the rest according to their degree of institutionalization and user satisfaction. Data were triangulated via architectural auditing of these buildings, the development of a 215 point checklist and interviews of 65 residents and 50 staff. The innovative aspects of the awarded facilities varied from the location to the layout and architectural detailing. The architects' original aim was to generate ideas and address the complexities of psychiatric environment. Yet, both performed poorly in all aspects of methodology. The research revealed the compromises that the buildings posed to clients' safety and security, to their competence and to their personalization and choice. It demonstrated the importance of user involvement from planning stage. Additionally, it addressed the complexity of the subject and the need to develop scientific methodologies for design that will provide the necessary knowledge -as opposed to subjective intuition- to architects in order to unfold their creativity.

ISBN 978-1-84387-385-3

Introduction

Architecture presents a significant complexity regarding its theoretical context, the design process and obviously the way buildings are experienced. This complexity is growing, together with the architectural discourse on design principles. Central to this, is the discussion on the reasons behind buildings not always performing according to expectations. Sometimes, the quality of life inside buildings might be so different from the originally intended that the buildings themselves become associated with the new reality. Housing for vulnerable populations, i.e., social housing and mental health accommodation constitute clear examples. Indicatively, we mention the Pruit Igoe Housing Complex St Luis, USA that its' demolishing was not enough to erase memory, the North Peckham estate and the Trellick Tower in London. The latter, not only linked the name of the architect Enro Goldfinger to a fictional "bad guy" but also became a cult monument linking architecture to pop culture through violence. Yet, social housing involves a series of good intentions, being often subject of studios in schools or of competitions. There, the good intentions of participants are judged and awarded by good intentioned peers. Yet, this cannot safeguard user-friendly results. Is mental health architecture on a similar path? There is no need to review its history and Panopticon, or explore the linguistics behind the word "bedlam" to associate psychiatric facilities with total institutions. Even after de-institutionalisation, community care could still foster social problems and create smaller-scale institutions in the community (Tomlinson, 1991; Ramon, 1996; Pilling, 1991; Sainsbury Centre for Mental Health, 1998). Occasionally, similarly to social housing, due to the extent of violence, mere refurbishment or reuse was not deemed as adequate solution Examples include Sevenacres in Isle of White and Meadowfield in Worthing, each replacing a relatively new mental health unit that had to be demolished soon after opening (Elderfield, 2002; Nightingale, 2002).

Aim

From this occasional inconsistency between architectural intentions and user satisfaction derives the question: which mechanism prevents architecture from reaching the aim of an environment that fosters personal and social integration? It is important to understand the paradigm and the design principles enabling a facility for mentally ill people to function according to expectations. The research set to counter the sad realization that psychiatric space tends to reproduce asylums in the community.

Here, it is important to understand that dangerousness is the reason for the existence of these facilities (Chartokolis, 1989). Society cannot handle the risk of harm or self-harm. It is inside the wards where this risk is managed. Once the service user's condition improves, the task of managing the risk passes back to the community. However, total institutions tend to enter the healthcare system (Foucault, 1972; Marcus, 1993). Adding to the inertia of the institutions, psychiatric space, as other areas of the built environment, has been addressed in a non-scientific manner from the architectural profession, due to academic isolation of architecture (RIBA, 2011).

ISBN 978-1-84387-385-3

Curiously, this lack of experimental evidence has not prevented architects from making strong assumptions about the role of the environment in mental healthcare (Chrysikou, 2012).

Methodology

For that purpose, a tool has been developed for the evaluation, the planning and the design of mental health facilities (Chrysikou, 2014). It constituted the first research on environments for community care, exploring users' needs and how these were met. It was the SCP model. The SCP stands for the main design issues –Safety and security, Competence and Personalization and choice. It brought together the main paradigms of psychiatry: the jurisdictional, medical and psychosocial models of care. The parameters correspond also to a pyramid of needs. The most basic is that of surviving an episode (safety and security), then the need to reduce the disabling effects of the illness (competence) and finally the need for wellbeing (personalization and choice). The model is sensitive and three dimensional (each parameter corresponds to an x, y, z axis) with increased flexibility and versatility. It is in accordance with the established psychiatric framework that rehabilitation starts from the onset of the treatment (Butcher, 1981; Ekdawi and Conning, 1994; Morris, 1993) incorporating competence at the core of the decision making and accepting the state of wellbeing (expressed by personalisation and choice) as essential, when managing risk (safety and security).

The research that involved academics, architects, health authorities, staff and service users. It investigated two very different contexts, UK and France to identify similarities that would set the ground for global application. Five facilities in each country, purpose-built, at the first tier of community care closest to the acute episode and occupied for at least two years provided the locus of the research. The case studies presented diversity regarding care regime, location, building typologies and design. The diversity is in accordance with the psychiatric principle of sectorisation (Abatzoglou, 1995). The UK facilities catered for a more acute population compared to the French, the reason being differences in care provision systems. They were compared in terms of psychosocial parameters and of space allocation to the various uses. Then, the methodology comprised quantification of the building traits with the use of an architectural checklist of 215 features. Finally, 50 staff members and 65 service users were interviewed on regime and service user experience of these buildings (Chrysikou, 2014). Research Ethics Committee (REC) permissions were granted for this research. The anonymity of the participants had to be retained. The researcher got permission to disseminate data, including the names of the participating facilities.

Findings

The research produced a considerable amount of data and findings, most beyond the scope of this paper. Here, the focus is on the performance of two awarded case studies compared to the rest.

ISBN 978-1-84387-385-3

Next follows a brief description of each of these two, that for the purpose of this paper will be named as Case Study A (CSA) and Case Study B (CSB).

CSA comprised an acute mental health ward inside a CMHC (Community Mental Health Centre). The location in a broader healthcare scheme was appreciated by staff as was in the case of CSB that was also in a Centre. Critics associated the unit to the 'core and cluster' model with "houses", developing around the core of common areas and services (Scher, 1995; Maru, 1991; NHS Estates, 1997). "Houses" aimed to be small interacting communities highlighting a domestic approach. However, the design was more complex and some aspects of "domestic-like" criteria were not met. "Houses" had connections to one another but not necessarily the core. The lack of visual differentiation between them and the inclusion in them of rooms with global functions prevented the establishment of local foci. Instead, they encouraged clients to use long corridors and to mix. The strong symmetry and the repetition of details disrupted orientation or the development of cognitive maps.

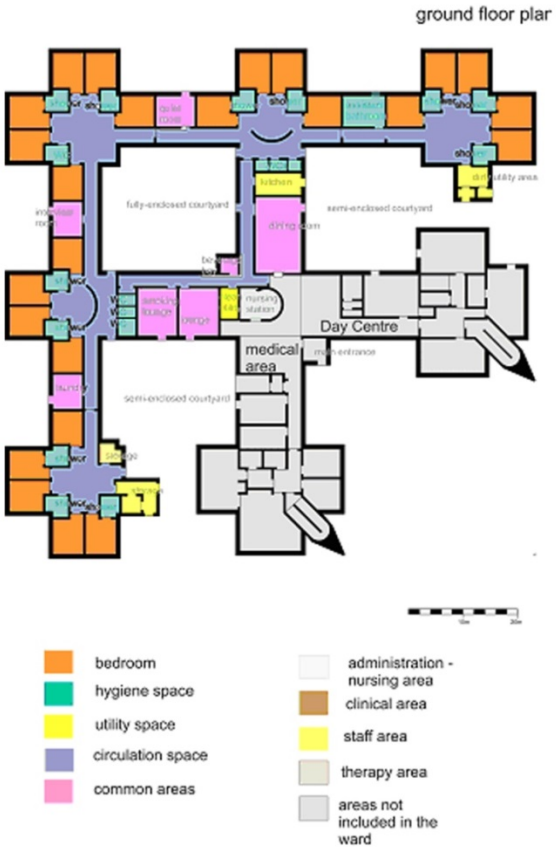

Figure 1: Ground floor plan of CSA

The ward felt crowded. Lack of space was frequently reported even for bedrooms, which comparatively to other wards were spacious. The low (second from the bottom) analogy of total floor space per service user might have contributed to that. Safety and security-wise, the ward

ISBN 978-1-84387-385-3

displayed anti-ligature details. However, according to staff, the corridor width was inadequate and design elements, such as benches, functioned as obstacles. The semi-enclosed courtyards remained locked, to cut down drug trafficking within the community. Activity areas were external and not directly accessible to clients. There was no client kitchenette. As a result, residents complained about communal life and withdrew in their rooms.

Figure 2: The semi-enclosed courtyard

The accessibility of the ward ranged from too much to a lack of it (NHS Estates, 1997). The unit presented wear and tear, even though it was in good condition compared to others. Some instances of damage, however, could have been addressed by design. Materials indicated that quality of environment was among the design intentions. The design was not homelike - in the all-carpeted and wallpapered sense - but not clinical either..

CSB was placed in a Community Health Centre combining primary care and mental health under one roof. The ward was independent in terms of management, yet it lacked essential areas for its functional independence, such as a dining room and a space to prepare meals. Instead, it relied on the day centre downstairs, even though they were not immediately linked physically (separate entrances) or organisationally.. The lack of spaces necessary for the practical autonomy of the ward differentiated CSB from other acute wards. Nevertheless, the presence of the day centre in the building did not necessarily guarantee any therapeutic activity for residents. Even, in the case of CSB, where clients had to go downstairs for meals, the majority of the clients could not attend the activities there, since there was not enough staff to escort individual residents. Lack of activity was stressed by staff. Clients adopted passive behaviours more than any other facility.

ISBN 978-1-84387-385-3

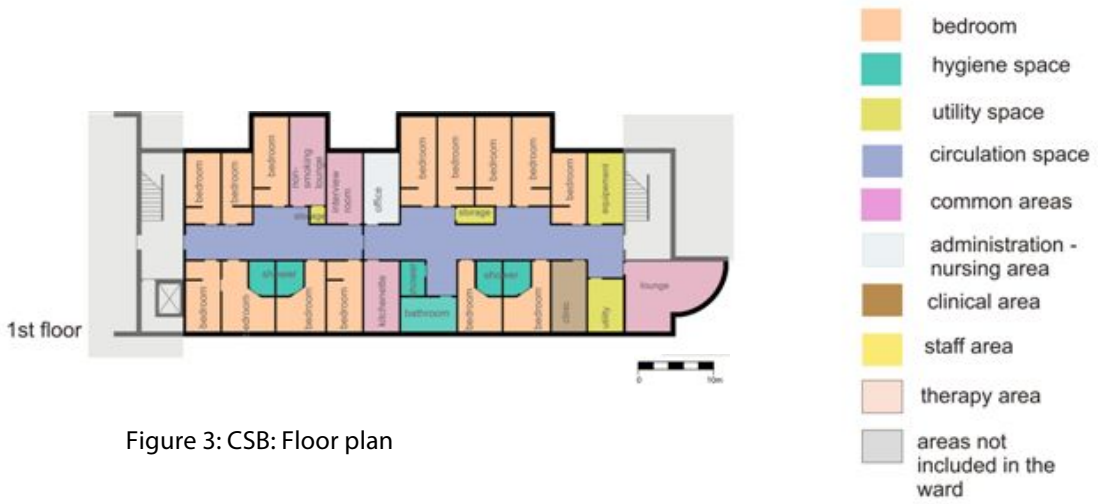

Figure 3: CSB: Floor plan

Figure 4: The non-smoking lounge

The central feature was the corridor. Its linear development and small size eased orientation. Yet, it lacked external views to make the location and cardinal orientation of the building intelligible from the inside. Space was restricted and service users complained more than other facilities about this. Sanitary facilities did not suffice and were shared by both genders. The only physical activity available to ward-bound clients was walking up and down the corridor. Safety-wise, the consideration for dangerousness was reflected in several details. However, the corridor had blind spots and rooms were too narrow to help staff gain control of violent service users. The latter – together with CSA service users— complained more than the rest about the inadequate size of bedrooms. This becomes more interesting with staff comments that found quiet spaces adequate, a common concern among CSA staff. This could be a result of people staying too much in bedrooms, leaving quiet spaces unoccupied. The nursing office, once the door was closed, could

ISBN 978-1-84387-385-3

not control the corridor or the entrance. The placement of the ward on a floor did not help in crises either. There was no secure garden. Yet, special consideration had been given to observation. Staff could check clients' beds indirectly by watch panels. These panels were, however, necessary according to staff but insufficient to replace the practice of staff entering bedrooms.

Figure 5: Watch panel on ward bedroom doors for indirect view of the bed through a mirror

The building was designed with the hospital concept in mind. The layout, the dependency on activities like meals, and its placement in a general health care institution, confirm this hypothesis. Even the fact that it was on a floor and without an independent entrance verifies that control was paramount. Overall, its design implied that the ward was short stay, and considered rehabilitation as a step after discharge.

Yet, there were interesting touches such as the plastic geometry of the corridor, the colours and the natural light. Single room accommodation, which was pioneering for the mid-90s with at least a washbasin, provided some control and privacy. However, service users, reported the presence of materials they disliked more than in other facilities, together with CSA where they also complained about maintenance and hygiene. Similarly, clients of CSA and CSB, complained more than the rest case studies regarding bedroom furniture. In CSB the lack of bedroom storage was also a problem.

Compared to the rest of the case studies, regarding institutional features, CSA ranked in the middle (sharing fifth and fourth position) and CSB shared the eighth and ninth. Both were quite far from the least institutional facility, which was also a UK one. Yet, both were more institutional compared to the mean. Figure 1 displays the mean percentile scores of the ten cases for the total of building features that the Checklist included in a rank order from the least to the most institutional and the scores of each case study for the three sub-groups of the Checklist.

ISBN 978-1-84387-385-3

Table 1: Percentages of Institutional features per building

Facility	Mean	C & S	B	S & R
CSC	26	31,82	30	24
CSD	30	22,73	47,50	26
CSE	41	59,09	45	37,41
CSA	**44**	**40,91**	**48,57**	**43,33**
CSF	44	40,91	62,50	39,73
CSG	47	45,45	62,50	39,73
CSH	47	13,64	62,50	47,62
CSI	48	59,09	47,50	46,38
CSB	**48**	**63,64**	**68,62**	**59,55**
CSJ	56	72,73	64,10	51,70

In the following part, the Context and Site features will be looked at to identify institutional elements. These involved the location and the integration to the surroundings. In Table 2 appear the mean percentages of institutional features of each building in that category. The sample mean for Context and Site of all the case studies was 45. The French sample mean was 39 and the UK sample mean was 51**.** French cases appear much less institutional, and to this contribute the fact that UK cases could be part of health care schemes.

ISBN 978-1-84387-385-3

Facility	Mean
CSH	13,64
CSD	22,73
CSC	31,82
CSA/CSF	**40,91**
CSG	45,45
CSE/CSI	59,09
CSB	**63,64**
CSJ	72,73

Table 2: Institutional features of Context and Site per building

The featuresrelevant to the Building were about layout and circulation. The units were rank ordered from least to most institutional. As it can be seen, there is no significant difference between the two countries. CSB was the most institutional among the case studies regarding building features with a mean of 68.42.

Table 3: Institutional features of Building per building

Facility	Mean
CSC	30
CSE	45
CSD/CSI	47,50
CSA	**48,57**
CSG/CSF/CSH	62,50
CSI	64,10
CSB	**68,42**

ISBN 978-1-84387-385-3

Space and Room was the broadest category of the three. It comprised features relevant to specific rooms, regarding fixtures and fittings, furniture and decoration. In this feature group, the French sample mean was 39, the UK was 41 and the total was 40.

Table 4: Institutional features of Space and Room per building

Facility	Mean
CSC	24
CSD	26
CSE	37,41
CSB	**39,55**
CSF	39,73
CSG	43,15
CSA	**43,33**
CSI	46,28
CSH	47,62
CSJ	51,70

An interesting finding of this research was that among the case studies there were two buildings that were distinguished by the healthcare architecture community, as their inclusion in the architectural literature to act as exemplars (NHS Estates, 1997) and their awards (Aneiron Bevan Award and St. Albans Civic Trust Award) indicated. They incorporated innovative aspects, regarding the placement of the facility, the layout and architectural detailing. Undeniably, the architects intended to generate ideas and to address the complexities of the psychiatric environment. There was no obvious reason why the architects or the awards committees should expect that staff and clients might be disappointed by those buildings to the point that they occasionally claimed in the interviews that both should be demolished. Moreover, these facilities performed from average to poorly in all aspects of the research methodology, i.e., detailed architectural auditing as well as the interviews. Overall, the design facilitated custodial elements and did not incorporate rehabilitation as part of psychiatric therapy from day one.

The researcher does not support the idea that awards are connected to poor performance or user dissatisfaction. The celebration of architectural accomplishments or the effort towards excellence as expressed through awards is not questioned here.

ISBN 978-1-84387-385-3

This research mainly stresses the fact that we still lack knowledge on how space performs and in particular how the psychiatric space operates. Additionally, it demonstrates that there is some distance between the architectural and the users' perception of the buildings. Moreover, the service users, even at acute stage, tend to have a clear understanding of their needs. This is a very strong message for architects and policy makers. As a result, user involvement is imperative when it comes to psychiatric space. This could be through the design process itself, via a user-inclusive architecture. That would mean the adoption of people-centered principles of design, as opposed to iconic-buildings approaches, and the cultivation of "listening" and of "problem solving" skills for architects.

It is also important to increase our understanding on the mechanisms that influence the personal and social milieu of psychiatric space and on the spatial perception and needs of the mentally ill people. Further research on these environments is imperative, especially since this involves vulnerable groups that might be confined in these environments for a considerable amount of time. This research will broaden our horizons in two very important humane topics. First, it will increase our understanding of mental illness itself and second it will promote mechanism of social inclusion of vulnerable people in general.

ISBN 978-1-84387-385-3

References

Abatzoglou, G. (1995) *Boarding houses, de-institutionalisation, critical presentation and proposals.* Tetradia Psychiatrikis (psychiatric notebooks), 51, Jul-Sept: pp. 51-53

Brand, S. (1994) *How Buildings Learn: What Happens After They're Built.* New York: Viking Press

Butcher, A. (1981) Upgrading rehabilitation. *Health and social service Journal,* August 28: p 1052

Chartokolis, P. (1989) *Introduction in Psychiatry*.2nd ed.Athens: Themelio Publications

Chrysikou, E. (2012) *From Normalization theory to a "Fit for Purpose" architecture for the mentally ill*. World Health Design, 5(3*),* pp.68-77.

Chrysikou, E. (2014) *Architecture for psychiatric environments: environments and therapeutic spaces*. Amsterdam: IOS Press

Ekdawi, M, and Conning, A. (1994) *Psychiatric rehabilitation.* London: Chapman and Hall

Elderfield, G.(2002) The Sevenacres story –with patients in mind, presentation in *With Design in Mind* in RIBA in 19/06/02. London: Isle of Wight Healthcare NHS Trus

Foucault, M. (1972) Histoire *de la folie a l'age clasique.* Éditions Gallimard

Hanson, J. (2001) Morphology and design: reconciling intellect, intuition, and ethics in the reflective practice of architecture. In: (Proceedings) *3rd International Space Syntax Symposium*. Atlanta. 7-11 May, 2001, Issue: 06.1-18

Health Building Note 35. Vol. 3, *Accommodation for People with Mental Illness: Case Studies*. Stationery Office: S, 1997

Markus, T. (1993) *Buildings and power: freedom and control in the origin of modern building types.* London: Routledge

MARU (1991) *Building for mental health: stick to your principles.* London:PNL

Morris, I. (1993) Working with people with long term mental health problems: the process of psychiatric rehabilitation, in Weller and Muijen (eds) *Dimensions of community mental health care*. London: Saunders

Nightingale, M. (2002) The Sevenacres story –the design solution, presentation in *With Design in Mind* in RIBA on 19/06/02. London: Isle of Wight Healthcare NHS Trust

Norman, DA. (2002) *The design of everyday thinks.* NY: Basic Books

Pilling, S. (1991) *Rehabilitation and community care.* London: Routledge

ISBN 978-1-84387-385-3

Ramon, S. (1996) *Mental Health in Europe.* ed Campling, J.London: MIND

RIBA (2011) *The Future for Architects?* Full Report. London: RIBA

Sainsbury Centre for Mental Health (1998) *Acute problems: a survey of the quality of care in acute psychiatric wards.*London: Sainsbury Centre for Mental Health

Scher, P. (1995) Patient focused architecture for healthcare in *Arts for Health*, Manchester: Manchester Metropolitan University, Faculty of Art and Design

Tomlinson, D. (1991) *Utopia, community care and the retreat from the asylums,* Milton Keynes.Philadelphia: Open University Press

ISBN 978-1-84387-385-3